Remarks

In response to the Office Action mailed on February 6, 2008, the Applicants respectfully request reconsideration in view of the following remarks. In the present application, claims 1, 3, and 5 have been amended and new claim 21 has been added. The claims have been amended to specify setting a registry key in a registry of the operating system as an indicator to the application program to load the logging code when monitoring of the plurality of user interactions has been indicated, wherein launching the set-up program module signifies user consent to have application program actions logged, wherein the registry is checked by the application program to determine if the monitoring of the plurality of user interactions has been indicated and, if so, then the monitoring of the plurality of user interactions is started in response to calling an initialization function, wherein the scheduled event is created at a random time within the predetermined time period when heavy use of the computer and the Internet connection is less likely than other times, wherein the plurality of hooks are implemented by the logging code and wherein, for a particular hook, the logging code uses a plurality of dynamic link libraries to determine a particular window handle that the particular hook points to, and utilizing a best fit algorithm to determine an object and an element that the window handle is associated with, wherein the object comprises a window and the element comprises at least one of command bars, dialogs, and task panes. Support for these amendments may be found at least on page 8. lines 1-22 and page 9, lines 11-18 in the Specification. No new matter has been added.

Claims 1-8, 10, 11, 19, and 20 are pending in the application. Claims 1-4 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 1, 3, and 4 are rejected under 35 U.S.C. § 103(a) as

being unpatentable over Terry (6961765), Gruyer et al. (2002/0112048, hereinafter "Gruyer") in further view of Raveis, JR. (2001/0047282, hereinafter "Raveis) in further view of Achiwa et al. (2003/0009438, hereinafter "Achiwa"). Claims 2, 5, 6, 10, 11, 19, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Terry, Gruyer, Raveis and Achiwa and in further view of Burgess et al. (5796633, hereinafter "Burgess"). Claims 7 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Terry, Gruyer, Raveis, Achiwa and Burgess in further view of Jawahar et al. (6256620, hereinafter "Jawahar").

Claim Rejections - 35 U.S.C. §112

Claims 1-4 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement for reciting that the launching of the set-up program module comprises installing the logging code in a memory of the computer, setting a registry key in the operating system as an indicator to the application program to lad the logging code, and signifies user consent to have the application program actions logged. The Office Action alleges that the Applicants' Specification fails to provide support for a set-up program which comprises both a setting of a registry key and that the setting of the registry key signifies user consent to have application programs logged. As can be seen in amended claim 1, the Applicants would like to clarify that it is the launching of the set-up program module and not the registry key which signifies user consent to have application programs logged. Support for this limitation may be found on page 8, lines 1-4 in the Specification. Thus, it is respectfully submitted that amended claim 1 complies with the written description requirement. Claims 2-4 depend from amended claim 1 and thus specify at least the same features.

Therefore, the rejection of claims 1-4 under 35 U.S.C. § 112, first paragraph, should be withdrawn.

Claim Rejections - 35 U.S.C. §103

<u>Claims 1, 3, and 4</u>

Claims 1, 3, and 4 are rejected as being unpatentable over Terry in view of Gruyer in further view of Raveis in further view of Achiwa. The rejection of these claims is respectfully traversed.

Amended independent claim 1 specifies a client-side system stored on a computer, wherein the client-side system logs, in a logging file, a plurality of user interactions performed in an application program module and periodically uploads the logging files to a remote server system for analysis of the logging file. The client-side system includes a logging code in communication with the application program module, wherein the logging code comprises a plurality of hooks into the application program module and an operating system of the computer, wherein when a user performs any recordable action within an application program, one of the plurality of hooks is triggered and a data record is generated; a logging file in communication with the logging code, wherein the logging code stores the data record in the logging file; a script file in communication with the logging file, wherein the script file is operative to upload the logging file to the remote server system, wherein uploading the logging file to the remote server system comprises opening an Active Data Object (ADO) session with the remote server system, renaming the logging file with a random number therein preventing duplication of a logging file name at the remote server system and placing the logging file into an ADO database record set; and a set-up program module, wherein launching

the set-up program module comprises installing the logging code in a memory of the computer and setting a registry key in a registry of the operating system as an indicator to the application program to load the logging code when monitoring of the plurality of user interactions has been indicated, and wherein launching the set-up program module signifies user consent to have application program actions logged; wherein the registry is checked by the application program to determine if the monitoring of the plurality of user interactions has been indicated and, if so, then the monitoring of the plurality of user interactions is started in response to calling an initialization function.

Terry discusses a method of detecting states that are activated by internal computer unit environment, which include: (a) monitoring the active window task manager for all identifiable window handles; (b) intercepting all operating system messages which are transmitted between third-party applications (programs) and the O/S; (c) detecting any change in a critical O/S file or third-party start-up file; (d) detecting any change in a critical aspect of the registry; (e) sending a inner-process communications message to any identifiable window handle which resides within the active task manager; (f) sending a real time forensic report to a monitor station defining the state of the detection. (See Terry column 4, lines 40-52.) Terry discusses a parallel thread that activates an independent 32 bit API DLL (505), to establish a "hook" into the actual O/S kernel. (See Terry column 13, lines 42-52.) Terry also discusses that a parallel thread is initiated to poll the status of the network connection and to ensure all proper pathways are established for the client application 110 to communicate with administrative application 115. (See Terry column 15, lines 39-42.) Terry further discusses that a registry key is opened as part of an analysis to determine unauthorized changes within a

particular   segment   of   the   registry   (i.e.,

HKEY_LOCAL_MACHINE:Software/Microsoft).   The analysis includes a method

opening the physical registry key and opening and querying the segment for any possible

unauthorized changes.   (See Terry column 19, lines 19-50).   Terry further discusses

initiating a parallel thread which will initiate a series of sub-threads, which collect

registry information throughout various defined segments of the computer registry. The

parallel thread is activated during the initial installation or re-initialization if the computer

is updated with new authorized software. (See Terry column 9, lines 60-67).

Gruyer discusses a method and system for analyzing the detailed behavior of the

users browsing the World Wide Web. The behavioral information may be provided to

businesses interested in knowing how users behave when using certain web services.

(See Gruyer paragraph [0009].) Gruyer also discusses that when a user 102 consents to

being monitored, the user is enabled to download and install the agent software 106 on a

user device 108, e.g., a workstation or a desktop computer.   (See Gruyer paragraph

[0009].)

Raveis discusses a system and method for managing real estate transactions over a

distributed computer network. (See Raveis paragraph [0009].) Raveis discusses that

Microsoft's Active Data Objects ("ADO") version 2.0 is used to establish database

connectivity between the business objects and the database.   (See Raveis paragraph

[0197].)

The Office Action acknowledges that the combination of Terry, Gruyer, and

Raveis fails to disclose renaming the logging file with a random number therein

preventing the duplication of a logging file name at the remote server system.   It is

further respectfully submitted that the combination of Terry, Gruyer, and Raveis fails to teach, disclose, or suggest setting a registry key in a registry of the operating system as an indicator to the application program to load the logging code when monitoring of the plurality of user interactions has been indicated or wherein the registry is checked by the application program to determine if the monitoring of the plurality of user interactions has been indicated and, if so, then the monitoring of the plurality of user interactions is started in response to calling an initialization function.

For example, Terry discusses the utilization of a computer registry and registry key to determine unauthorized changes within a particular segment of the registry (see Terry column 19, lines 19-50) and the utilization of a parallel thread to collect computer registry information. Terry however, fails to teach, disclose or suggest the setting of a registry key in the operating system as an indicator to the application program to load logging code when monitoring of the plurality of user interactions has been indicated, as specified in amended claim 1. Terry also fails to disclose that the registry is checked by the application program to determine if the monitoring of the plurality of user interactions has been indicated and, if so, then the monitoring of the plurality of user interactions is started in response to calling an initialization function. At most, Terry merely discusses that Windows applications may write data to the registry at least during installation (see col. 9, lines 60-67, col. 17, lines 18-65). Both Gruyer and Raveis, discussed above, are silent with respect to registry keys or a registry in connection with launching a set-up program module for installing logging code and thus, both individually and in combination, fail to teach, disclose, or suggest the aforementioned features specified in amended claim 1.

Achiwa, relied upon in the Office Action for allegedly curing the deficiencies of Terry, Gruyer, and Raveis, discusses providing a means for specifying an object of remote copy for a networked attached storage at detailed levels. A storage system for accepting that a file request has remote copy information and specifying a destination of remote copy in units of a file or directory. The storage system receives a write request of a file, determines whether the file for which the write request is issued is an object of remote copy on the basis of the remote copy information, and if so, executes a remote copy operation to a remote copy destination acquired from the remote copy information. See paragraphs 0013-0014. Files which failed in remote copy are stored in an emergency volume and the files have randomly generated file names to prevent identical file names in the emergency volume. See paragraph 0065.

As will be discerned from the discussion of Achiwa, above, Achiwa fails to cure the deficiencies of Terry, Gruyer, and Raveis in that the reference is silent with respect to registry keys or a registry in connection with launching a set-up program module for installing logging code as specified in amended claim 1.

Based on the foregoing, the combination of Terry, Gruyer, Raveis, and Achiwa fails to teach, disclose, or suggest each of the features specified in amended claim 1. Therefore, amended claim 1 is allowable and the rejection of this claim should be withdrawn. Claims 3-4 depend from amended claim 1, and are thus allowable for at least the same reasons. Therefore, the rejection of these claims should also be withdrawn. In addition, amended claim 3 specifies wherein the script file uploads the logging file to the remote server system via an Internet connection, wherein the scheduled event is created at a random time within the predetermined time period when heavy use of the computer

and the Internet connection is less likely than other times. As conceded in the Office Action, the combination of Terry, Gruyer, Raveis, and Achiwa fails to teach, disclose or suggest a scheduled event created within a predetermined time period. In the rejection of claim 2 (from which claim 3 depends) the Office Action relies on Burgess for allegedly teaching a predetermined time interval (col. 8, lines 19-63). Burgess however merely discusses a logging thread which logs performance data each predetermined time interval and thus fails to disclose a scheduled event which is created at a random time within the predetermined time period when heavy use of the computer and the Internet connection is less likely than other times. Thus, it is respectfully submitted that amended claim 3 is allowable for at least the foregoing additional reasons.

<u>Claims 2, 5, 6, 10, 11, 19, and 20</u>

Claims 2, 5, 6, 10, 11, 19, and 20 are rejected as being unpatentable over Terry in view of Gruyer in further view of Raveis in further view of Achiwa and in further view of Burgess. The rejection of these claims is respectfully traversed.

Claim 2 depends from amended claim 1 and thus specifies at least the same features. As discussed above, the combination of Terry, Gruyer, Raveis, and Achiwa fails to teach, disclose, or suggest each of the features of amended claim 1.

Burgess discusses monitoring the performance of a computer coupled to a computer network and generating an alert when the performance of the computer has reached an alertable level. The computer is monitored for performance data which is automatically sent over the computer network to a second computer for logging to a performance database. See col. 2, lines 21-34.

Burgess, however, fails to teach, disclose, or suggest the setting of a registry key as an indicator to the application program to load the logging code as is recited in claim 2 (based on its dependency on claim 1). Therefore, claim 2 is allowable for at least the foregoing reasons and the rejection of this claim should be withdrawn.

Amended claim 5 specifies a computer-implemented method for tracking a plurality of user interactions performed in a software application program module stored on the user's computer. The method includes allowing a user to determine if they wish to have interactions with the software application program module logged; determining if any recordable user interaction performed in the software application program module has occurred by determining whether a notification has been received by a logging code from any one of a plurality of hooks, wherein each of the plurality of hooks causes an event message to be routed to the logging code for an analysis, the analysis comprising an inspection of the event message to determine whether the event message affects a user interface of the application program module prior to the event message being sent to the application program module, wherein the plurality of hooks are implemented by the logging code and wherein, for a particular hook, the logging code uses a plurality of dynamic link libraries to determine a particular window handle that the particular hook points to; utilizing a best fit algorithm to determine an object and an element that the window handle is associated with, wherein the object comprises a window and the element comprises at least one of command bars, dialogs, and task panes; recording the user interaction in a logging file on the computer; determining that a scheduled event is triggered during a predetermined time period; opening an Active Data Object (ADO) session with the remote analysis server; renaming the logging file to prevent duplication

of a logging file name at the remote server system; placing the logging file into an ADO database record set; and in response to the scheduled event triggering during the predetermined time period, determining whether the logging file exists, and, if so, then uploading the logging file to a remote analysis server, wherein uploading the logging file comprises posting the ADO database record set to the remote analysis server.

As acknowledged in the Office Action, the combination of that Terry, Gruyer, and Burgess fail to teach or suggest opening an Active Data Object (ADO) session and placing a logging file into an ADO database record set. It is also respectfully submitted that the aforementioned combination of references also fails to teach, disclose, or suggest wherein the plurality of hooks are implemented by the logging code and wherein, for a particular hook, the logging code uses a plurality of dynamic link libraries to determine a particular window handle that the particular hook points to or utilizing a best fit algorithm to determine an object and an element that the window handle is associated with, wherein the object comprises a window and the element comprises at least one of command bars, dialogs, and task panes. Based on the discussion above, the combination of Terry, Gruyer, and Burgess are silent with respect to the utilization of a plurality of dynamic link libraries to determine a particular window handle that the particular hook points to and with respect to utilizing a best fit algorithm to determine an object and an element that the window handle is associated with.

Furthermore, it is also respectfully submitted that neither Raveis nor Achiwa (alone or in combination) relied upon in the Office Action for allegedly curing the deficiencies of Terry, Gruyer, and Burgess, teaches discloses or suggests wherein the plurality of hooks are implemented by the logging code and wherein, for a particular

hook, the logging code uses a plurality of dynamic link libraries to determine a particular window handle that the particular hook points to or utilizing a best fit algorithm to determine an object and an element that the window handle is associated with, wherein the object comprises a window and the element comprises at least one of command bars, dialogs, and task panes.

For example, Raveis, as discussed above, is merely concerned with managing real estate transactions over a distributed computer network through the use of data objects (i.e., Microsoft's Active Data Objects ("ADO")) to establish database connectivity between the business objects and the database. Thus, Raveis fails to disclose the utilization of a plurality of dynamic link libraries to determine a particular window handle that the particular hook points to and with respect to utilizing a best fit algorithm to determine an object and an element that the window handle is associated with. Similarly, Achiwa, as discussed above, is merely concerned with remote copy information details and the storage of files in a networked attached storage (NAS). Thus, Achiwa also fails to cure the deficiencies of Terry, Gruyer, Burgess, and Raveis.

Based on the foregoing, the combination of Terry, Gruyer, Raveis, Achiwa, and Burgess fails to teach, disclose, or suggest each of the features specified in amended claim 5. Therefore, amended claim 5 is allowable and the rejection of this claim should be withdrawn. Claims 6, 10, 11, 19, and 20 depend from amended claim 5, and are thus allowable for at least the same reasons. Therefore, the rejection of these claims should also be withdrawn.

<u>Claims 7 and 8</u>

Claims 7 and 8 are rejected as being unpatentable over Terry in view of Gruyer in further view of Raveis in further view of Achiwa in further view of Burgess and in further view of Jawahar. The rejection of these claims is respectfully traversed.

Claims 7 and 8 depend from amended claim 5 and thus specify at least the same features. As discussed above, the combination of Terry, Gruyer, Raveis, Achiwa and Burgess fails to teach, disclose, or suggest each of the features of amended claim 5

Jawahar, relied upon in the Office Action for allegedly curing the deficiencies of Terry, Gruyer, Raveis, Achiwa, and Burgess, discusses a system that monitors the access of information by an individual or system. An access monitoring application monitors information accessed by an information accessing system. Data received from the information accessing system identifies the information accessed which may include information stored in web pages. See col. 2, lines 1-15.

As will be discerned from the discussion of Jawahar, above, the reference fails to contemplate or suggest at least, in monitoring the access of information, determining whether a notification has been received by a logging code from any one of a plurality of hooks, wherein each of the plurality of hooks causes an event message to be routed to the logging code for an analysis, the analysis comprising an inspection of the event message to determine whether the event message affects a user interface of the application program module prior to the event message being sent to the application program module, as recited in claims 7-8.

Based on the foregoing, Jawahar fails to cure the deficiencies in the combination of Terry, Gruyer, Raveis, Achiwa, and Burgess. Therefore, claims 7-8 are allowable for at least the foregoing reasons and the rejection of these claims should be withdrawn.

New Claim

New claim 21 incorporates the features of claims 1-3. As discussed above, the cited references of record fail to teach, disclose, or suggest each of the features specified in the aforementioned claims. Therefore, it is respectfully submitted that new claim 21 is allowable over the cited references of record for at least the reasons discussed above with respect to claims 1-3.

Conclusion

In view of the foregoing amendments and remarks, this application is now in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is invited to call the Applicants' attorney at the number listed below.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 13-2725.

Respectfully submitted,

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